

Name: \_\_\_\_\_

**p1106: Solve by factoring (v3)**

1. Solve the equation

$$x^2 + x - 56 = 0$$

$$(x - 7)(x + 8) = 0$$

$$x = -8$$

$$x = 7$$

2. Solve the equation

$$x^2 + 16x + 64 = 0$$

$$(x + 8)(x + 8) = 0$$

$$x = -8$$

$$x = -8$$

3. Solve the equation

$$3x^2 + 26x + 80 = 2x^2 + 9x + 8$$

$$x^2 + 17x + 72 = 0$$

$$(x + 8)(x + 9) = 0$$

$$x = -9$$

$$x = -8$$

4. Solve the equation

$$8x^2 + 5x - 46 = 7x^2 + 6x - 4$$

$$x^2 - x - 42 = 0$$

$$(x + 6)(x - 7) = 0$$

$$x = 7$$

$$x = -6$$

5. Solve the equation

$$3x^2 - 16x + 53 = 2x^2 - x - 1$$

$$x^2 - 15x + 54 = 0$$

$$(x - 6)(x - 9) = 0$$

$$x = 9$$

$$x = 6$$

6. Solve the equation

$$11x^2 - 7x - 4 = 0$$

$$(11x + 4)(x - 1) = 0$$

$$x = 1$$

$$x = \frac{-4}{11}$$

7. Solve the equation

$$5x^2 + 22x + 8 = 0$$

$$(5x + 2)(x + 4) = 0$$

$$x = -4$$

$$x = \frac{-2}{5}$$

8. Solve the equation

$$7x^2 - 45x - 37 = 2x^2 - 9x - 5$$

$$5x^2 - 36x - 32 = 0$$

$$(5x + 4)(x - 8) = 0$$

$$x = 8$$

$$x = \frac{-4}{5}$$

9. Solve the equation

$$10x^2 + 20x - 55 = 7x^2 + 3x + 1$$

$$3x^2 + 17x - 56 = 0$$

$$(3x - 7)(x + 8) = 0$$

$$x = -8$$

$$x = \frac{7}{3}$$

10. Solve the equation

$$13x^2 - 112x + 68 = 2x^2 - 5x - 4$$

$$11x^2 - 107x + 72 = 0$$

$$(11x - 8)(x - 9) = 0$$

$$x = 9$$

$$x = \frac{8}{11}$$